## **Balkan Network Update**

AUTh FMRS and i-BEC National and Regional Activities

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## **Presentation Structure**

- i-BECs strategic partnerships and global activities
- i-BECs Civil Protection (forest fire) related activities
- AUTh iBEC: existing projects and on-going proposals
- Future actions
- EARSeL FFSIG forthcoming workshop announcement

## i-BECs role and strategic partnerships

#### Role

- i-BEC is an international center that focuses on the monitoring of the environment and the protection of natural resources
- The Center acts as a bridge between the public and the private sector both at national and international level

## Strategic partnerships (so far)

International

- GEO (representing the Balkan region)
- Global Soil Partnership

#### **National**

- Greek Center of Security Studies (KEMEA)
- SI-Cluster

#### **Private Sector**

- Airbus Astrium
- Hexagon Geospatial











# i-BECs Global activities and regional representation

## Global activities (so far)

- Organizes the EGTC 'INEU-Innovative Europe'
- Works with the 'Watershed Research Institute' USA
- Develops actions with the Black-Sea Region, Europe and USA in co-funded projects
- Participation in the validation of GlobalLand30

### **Regional network**

 Close cooperation with Cyprus, Albania, FYROM, Bulgaria, Israel and Lebanon

## **Regional i-BEC offices**

- FYROM (Skopje)
- Bulgaria (Sofia)
- Albania (Tirana)

## i-BEC: Civil Protection related actions (incl. Fire)

- Management and provision of environmental data and indicators to appropriate authorities and the public, acting as a focal point
- Operation of IT hubs for management of environmental data from transboundary watersheds and creation of archives using state of the art geo-databases and digital infrastructures such as cloud computing - server consolidation
- Focal point for monitoring fires in the Balkan region (through the establishment of the Balkan Wildland Fire Observatory)
- Operational plan for establishing an Observatory for Rural Development Interventions
- Member of relative clusters such as the Greek Center of Security Studies (KEMEA)

# AUTh – i-BEC: existing projects and on-going proposals

### **Funded**

- National Observatory of Forest Fires (Hellenic Ministry of Environment Energy and Climate Chance – Green Fund) Budget: 210K
- National Observatory of Forests (Hellenic Ministry of Environment Energy and Climate Chance – Green Fund) Budget: 137K
- NFOFRAS (General Secretariat for Research and Technology PLANETEK and Geosystems Hellas with i-BEC as subcontractor) Budget: 108K (JUST STARTED)

## **Under preparation**

European Grouping of Territorial Cooperation (EGTC)

## **Under investigation**

Our participation in the 2nd phase of the ESA Fire\_CCI



# The National Observatory of Forest Fires (NOFFi)



## Objectives:

#### 1st Phase

- Development of a methodology for 'Fuel Type Mapping and regular update' (National Level)
- Development of a Regional Forest Fire Danger Index
- Operational Burned Area Mapping at National Level

#### 2<sup>nd</sup> Phase

- Knowledge transfer and dissemination to the Balkan countries (expert meetings, workshops, etc.) using the i-BEC network and national offices
- Creation of a 'Portal PPGIS' to be used by all collaborating organisations in the region
- Establishment of the 'Balkan Wildland Fire Observatory'

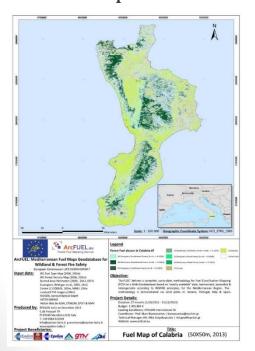


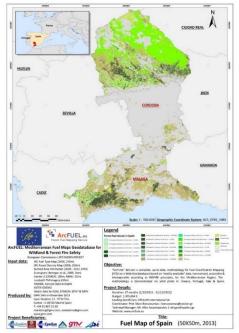
## **NOFFi Fuel type mapping**



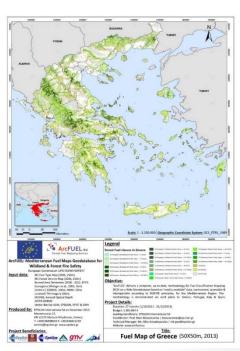
## **Fuel Type Mapping**

The methodology that was recently developed by FMRS within the frame of the ArcFuel EU LIFE project (<a href="http://www.arcfuel.eu/index.php/en/">http://www.arcfuel.eu/index.php/en/</a>) will be further improved.











# NOFFi Fuel type mapping (2)



### So far:

- DMC winter and summer mosaics have been created
- The fuel type classification scheme has been defined







## NOFFi - Regional Forest Fire Danger Index



#### **Initial actions:**

- Collaboration with national fire experts such as Prof. A.
  Dimitrakopoulos and G. Eftychides has been established
- A one day meeting with the Civil Protection Agency of Greece who is responsible for the national Daily Fire Danger Index was organised – the collaboration is necessary but **not an easy** task
- Communication with Emilio Chuvieco's group and the JRC team in order to ensure international support. Any volunteers?



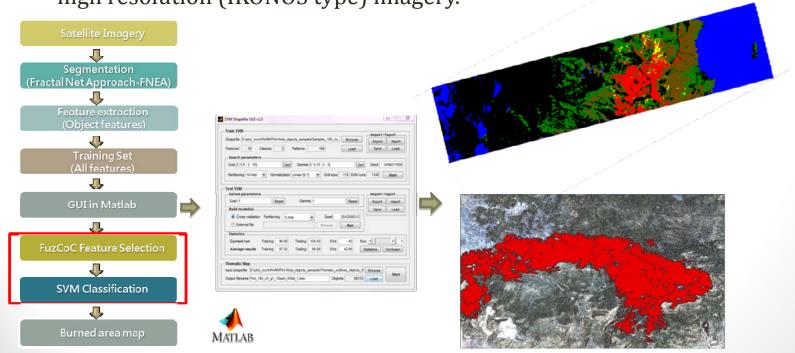
# NOFFi - Operational Burned Area Mapping



#### So far:

 A semi-automated methodology for mapping burned areas (in-house developed using MATLAB) is already in use.

 The method proved to work well with high (Landsat type) and very high resolution (IKONOS type) imagery.



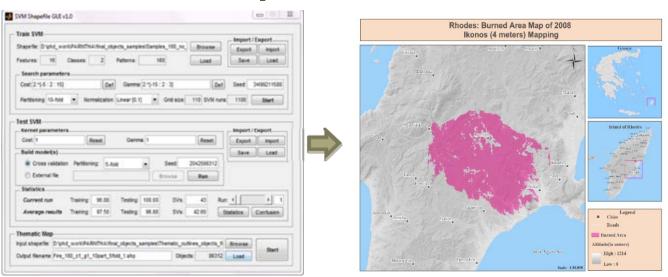


## NOFFi - Operational Burned Area Mapping (2)



## **Next step:**

- A stand alone application easy to be used by non-experts is planned to be developed in the second phase of the project.
- Validation with official products.



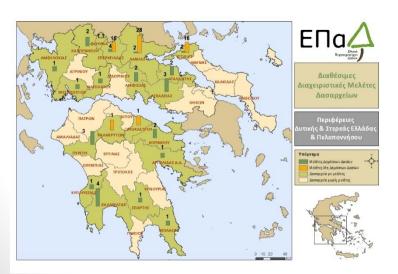


# The National Observatory Engl of Forests (NOF)



## Objectives:

- Collection and homogenization of recent and historical forest management plans at National level.
- Development of a web-GIS portal for the Greek Forest Service.
- Provide an overview useful for national planning and to support international reporting obligations (e.g. Kyoto protocol)







sı-cluster

## **NFOFRAS**





- It is an industry driven project (PLANETEK Hellas and Geosystems Hellas) which is supported by the Greek government through the General Secretariat for Research and Technology.
- The objective is to select a number of GCOS Terrestrial Essential Climate Variables and/or supplementary data related to fire disturbance and especially to fire danger assessment (e.g. LC and fuel information, vegetation measurements) and focus on the improvement of the fire product at a national level, as addressed within the GCOS implementation plan.
- The industrial partners are expected to create viable international business opportunities pertaining to technology transfer services and continuous upgrade of the relevant products.

## **Future actions**

- Closer collaboration with GOFC-GOLD (resulting from this meeting)
- Collaboration could be related to fire management, emissions estimation, and burned area product validation among others
- Work with NASA in the establishment of SEMRIN (the South Eastern Mediterranean Research Initiative Network)
- Other

## **EARSeL FFSIG anouncement**

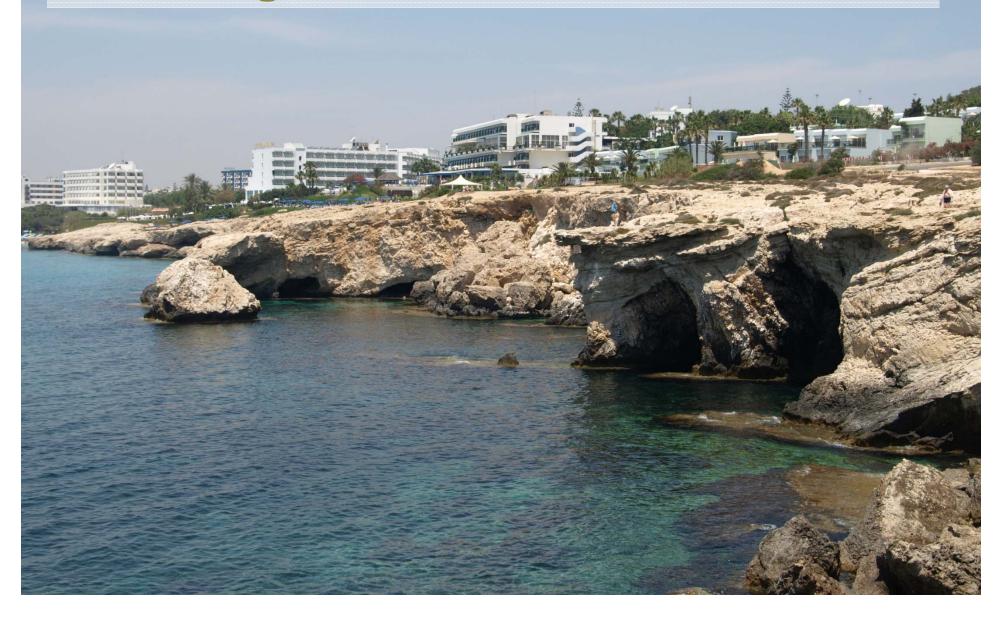


# 10th EARSeL Forest Fire SIG Workshop

# 10th EARSeL Forest Fire Workshop



# The workshop will take place in a beach hotel overlooking the beautiful Mediterranean sea







Cyprus has over 10,000 years of history, due to its strategic location as a crossroad between Europe, Asia and Africa, with a rich history of settlements by the Greeks, Egyptians, Mycenaeans, Phoenicians, Persians and Romans.



Mark your calendars and register early. We look forward to seeing you in Cyprus!

Thank you very much for your attention!